

WHAT IS CLAIMED IS:

1. A pressure sensor device having a temperature sensor comprising:

a pressure sensor for detecting pressure of a measuring object;

a temperature sensor attached to a lead wire for detecting temperature of the measuring object;

a sensor casing for accommodating a connector pin and the pressure sensor, the connector pin electrically connecting the pressure sensor and an outside circuit;

a port mounted on the sensor casing and having a pressure introduction port for introducing the measuring object to the pressure sensor disposed in the sensor casing; and

a vibration reduction means for reducing a vibration of both the temperature sensor and the lead wire,

wherein the temperature sensor is disposed in the pressure introduction port, and electrically connects to the connector pin through the lead wire, and

wherein both the temperature sensor and the lead wire are supported by a connection portion, which is disposed between the connector pin and the lead wire.

2. The pressure sensor device according to claim 1,

wherein the vibration reduction means is provided by a buffer disposed between the lead wire and a part of the pressure introduction port.

3. The pressure sensor device according to claim 2,
wherein the pressure introduction port includes a partition plate for separating at least a part of the pressure introduction port into two parts, the partition plate being disposed along with an introducing direction of the measuring object, and

wherein one part of the pressure introduction port is a temperature sensor chamber for accommodating the temperature sensor.

4. The pressure sensor device according to claim 3,
wherein the buffer is disposed between the lead wire and a part of the temperature sensor chamber.

5. The pressure sensor device according to claim 2,
wherein the buffer is made of resin material disposed between the lead wire and a part of the pressure introduction port.

6. The pressure sensor device according to claim 5,
wherein the resin material is hot melt adhesive.

7. The pressure sensor device according to claim 2,
wherein the buffer is disposed between the lead wire and a part of the pressure introduction port, and is formed of elastic member for fixing the lead wire.

8. The pressure sensor device according to claim 2,
wherein the port includes an introduction port for inserting

the buffer therethrough.

9. The pressure sensor device according to claim 1,
wherein the vibration reduction means is provided such that
at least one of the temperature sensor or the lead wire is
insert-molded into the port so as to reduce the vibration.

10. The pressure sensor device according to claim 9,
wherein both the sensor casing and the port provide a pressure
chamber for introducing the measuring object therein, and
wherein the lead wire and the connector pin are connected at
a connection portion, which is disposed outside the pressure
chamber.

11. The pressure sensor device according to claim 10,
wherein the connection portion is covered with epoxy resin
or silicon resin.

12. The pressure sensor device according to claim 1,
wherein the vibration reduction means is provided by a
protrusion disposed on a surface of the lead wire.

13. The pressure sensor device according to claim 1,
wherein the vibration reduction means is provided such that
the lead wire is fixed to the port by resin material thermally clamped
between the lead wire and the port.

14. The pressure sensor device according to claim 9,
wherein the pressure introduction port includes a partition plate for separating at least a part of the pressure introduction port into two part, the partition plate being disposed along with an introducing direction of the measuring object, and
wherein one part of the pressure introduction port is a temperature sensor chamber for accommodating the temperature sensor.

15. A pressure sensor device having a temperature sensor comprising:

a pressure sensor;

a temperature sensor attached to a lead wire;

a casing for accommodating the pressure sensor and a connector pin for connecting both the pressure sensor and the temperature sensor to an outside circuit;

a passage disposed in the casing for introducing a measuring object to the pressure sensor; and

a vibration reduction means for reducing a vibration of the lead wire with the temperature sensor,

wherein the lead wire is supported by a connection portion between the connector pin and the lead wire so that the lead wire is protruded in the passage.

16. The pressure sensor device according to claim 15,
wherein the vibration reduction means is provided by a buffer disposed between the lead wire and a part of the passage.

17. The pressure sensor device according to claim 16,
wherein the passage is divided by a partition into two regions,
wherein one region of the passage is a pressure introduction
passage for introducing the measuring object to the pressure sensor,
wherein the other region of the passage is a temperature sensor
chamber for accommodating the temperature sensor, and
wherein the buffer is disposed in the temperature sensor
chamber.

18. The pressure sensor device according to claim 17,
wherein the buffer completely closes the temperature sensor
chamber.

19. The pressure sensor device according to claim 17,
wherein the buffer partially closes the temperature sensor
chamber so that the measuring object passes through the buffer.

20. The pressure sensor device according to claim 16,
wherein the buffer is made of resin material, and
wherein the casing further includes an introduction port for
introducing the resin material in case of forming the buffer.

21. The pressure sensor device according to claim 20,
wherein the resin material is hot melt adhesive.

22. The pressure sensor device according to claim 16,
wherein the buffer is formed of a ball-shaped elastic member,

and

wherein the casing further includes an introduction port for inserting the elastic member in case of forming the buffer.

23. The pressure sensor device according to claim 15,
wherein the vibration reduction means is provided such that at least one of the temperature sensor or the lead wire is insert-molded into the casing so as to reduce the vibration.